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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BINDA, GREGORY JOHN

ART UNIT PAPER NUMBER

3679

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,912

Applicant(s)

WEHNER, ROBERT JOSEPH

Examiner

Greg Binda

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20031016
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

Information Disclosure Statement

1. The listing of references in the specification as in paragraph 0014 is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

2. The drawings are objected to because:
- a. Reference numeral 10 is used in Figs. 1-3 to identify a boot seal with ribs and then reused in Figs. 4 & 5 to identify a modified boot seal without ribs. Such usage is proscribed. See MPEP § 608.02(e).
 - b. Reference numeral 70 appears in Fig. 2, but is not mentioned in the description.
 - c. Per paragraph 0018, Fig. 4 is supposed to show the boot seal 10 without ribs 72, but the boot seal in Fig. 4 does not look like the boot seal in Fig. 1 minus its ribs. Instead, the boot seal in Fig. 4 has some unidentified conically shaped feature (indicated by the lead lines of reference numerals 16, 50 & 52) in place of ribs 72.
 - d. The drawings fail to show the limitations of claims 8-10 & 15-17. Each diameter, U-shaped cavity and chamfer recited in the claims must be marked off and indicated by a reference character in a view that has a scale large enough to clearly show the limitation without crowding.

3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because:
- a. On page 4, line 9 the first member 24 is described as an “internally [i.e. female] splined output shaft” but in line 12 the first member 24 is described as including a male splined end.
 - b. On page 5, line 16, the output shaft 24 is identified by the wrong reference numeral.

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5. The specification is objected to as failing to comply with 37 CFR 1.71 and 1.75(d)(1) because the detailed description fails to provide proper antecedent basis for the following claimed subject matter:

- a. Claim 1, lines 5-7: "the flange seal portion being configured to seal against a rotary joint member in a direction that is generally transverse to a longitudinal axis of the flange end"
- b. Claim 4: "the attachment portion is a cylindrical bore"
- c. Claims 6 & 14: "a distal end . . . includes a first portion . . . and a second portion"
- d. Claims 8 & 15: "an outside diameter of the distal end"
- e. Claims 9 & 16: all limitations therein
- f. Claim 11, line 4: "a boot seal for covering at least a portion of the first and second joint members"
- g. Claim 11, lines 5 & 6: "the body portion being hollow to shroud therein at least a portion of the first and second joint members"
- h. Claim 11, lines 8, 9, 14 & 15: all limitations therein
- i. Claim 12: "the flange seal portion includes a cylindrical bore"

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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7. Claims 8, 11-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Both claims 8 & 15 recite the limitations “an outside diameter . . . has a magnitude” and “a magnitude of an inside diameter”. It is not clear what these limitations mean. Is the term “a magnitude” supposed to mean “the value of”? If so then why is it not stated that way?

b. Claim 11, line 8 recites the limitation “a first end” but does not recite what the “first end” is a first end of.

c. Claim 11, line 9 recites the limitation “a second end” but does not recite what the “second end” is a second end of.

d. Claim 11, line 11 recites the limitation “the flange” but it is not clear which of the previously recited flanges is “the flange”.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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9. Claims 1-4 & 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Cheney et al, US 6,361,444. Fig. 5 shows a boot seal 50' comprising all the limitations of the claims. Fig. 5 shows the boot seal comprises a flexible body portion; and a flange end coupled to the body portion, the flange end including a flange seal portion 56' and an annular lip 58', the flange seal portion being configured to seal against a rotary joint member in a direction that is generally transverse to a longitudinal axis of the flange end, the annular lip extending circumferentially about the flange seal portion and shielding the flange seal portion from debris and water. Fig. 5 shows a chamfer is formed on a leading edge of the flange seal portion 56' (see also "tapered" in col. 4, line 4).

10. Claims 1, 3, 4, 6-8, 11, 12, 14 & 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Krisher, US 6,319,132. Krisher shows a mechanical joint 12 comprising all the limitations in the claims. The figure shows that the joint comprises: a first joint member 14 that is mounted for rotation about an axis; a second joint member 30 rotatably coupled to the first joint member; and a boot seal 32 comprising all the limitations of the claims.

11. Claims 11 & 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Moulindt, US 5,176,576. Figs. 1-3 shows a mechanical joint 10 comprising all the limitations in the claims. Figs. 1-3 show that the joint comprises: a first joint member 12 that is mounted for rotation about an axis; a second joint member 30 rotatably coupled to the first joint member; and a boot seal 32 comprising all the limitations of the claims. Figs. 1-3 show the boot with a flange end that comprises a flange seal portion 50, 72 and an annular lip 40 with a U-shaped cavity 48.

12. Claims 1, 3, 4, 10-12 & 17 rejected under 35 U.S.C. 102(b) as being anticipated by Botti, FR 2,592,111. Fig. 1 shows a mechanical joint comprising all the limitations in the claims. Fig. 1 shows that the joint comprises: a first joint member 6 that is mounted for rotation about an axis; a second joint member 7 rotatably coupled to the first joint member; and a boot seal 1 comprising all the limitations of the claims. Fig. 1-3 show the boot with a chamfered flange end 4.

13. Claims 1-4 & 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Hassan, US 3,262,706. Fig. 4 shows a boot seal 40 comprising all the limitations of the claims.

14. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Krude et al, US 4,456,269 (Krude). Fig. 7 shows a boot seal 3 comprising all the limitations of the claims.

15. Claims 1, 3, 4 & 6-10 are rejected under 35 U.S.C. 102(b) as being anticipated by MacSpadden, US 3,403,917. Fig. 4 shows a boot seal S' comprising all the limitations of the claims.

16. Claims 1, 3, 4, 11 & 12 are rejected under 35 U.S.C. 102(e) as being anticipated by MacDonald et al, US 6,540,618. Figs. 2b & 3 show a mechanical joint comprising all the limitations of the claims.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 5 & 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krisher in view of Krude. Krisher shows a boot seal 32 with a flange end (right end of boot 32) with an annular lip (the vertical portion of the flange end) and a flange seal portion (the horizontal portion of the flange end surrounded by a boot clamp) but does not show a plurality of radially extending rib members interconnecting the annular lip with the flange seal portion. In col. 2, lines 19-28 and col. 3, lines 62+, Krude teaches providing a flange end of boot seal with a plurality of radially extending rib members 13 in order to provide a means for reinforcing the flange end and a means for inducing air flow. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the boot seal of Krisher by including a plurality of radially extending rib members 13 in order to provide a means for reinforcing the flange end and a means for inducing air flow as taught by Krude.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Odaka and Suzuki et al each show a boot seal.

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20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (703) 305-2869. The examiner can normally be reached on M-F 9:30 am to 7:00 pm with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (703) 308-2686. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Greg Binda
Primary Examiner
Art Unit 3679